

January 22, 2003

**REMARKS**

In the Office Action, the Examiner indicated that claims 1 through 20 are pending in the application and the Examiner rejected all claims.

**Art Rejections under 35 U.S.C. §§102 and 103**

Substantively, the Examiner has reiterated, essentially word for word, the art rejections made in the previous Office Action. With one exception set forth below, applicant stands by the comments made in the reply/amendment filed on July 29, 2002 with respect to these art rejections, and will rely upon these same arguments in any appeal. Thus, for the reasons set forth in the July 29, 2002 response/amendment (subject to a clarification described below), applicant respectfully traverses the claim rejections based on 35 U.S.C. §§102 and 103.

To further prosecution and hopefully clarify issues which appear to be the subject of some confusion, applicant presents the following comments directed to the Examiner's "Response to Arguments" section of the October 22, 2002 final Office Action (paragraphs 4 and 5 on pages 2-6 of the Office Action).

**Comments Regarding the Examiner's "Response to Arguments" Section of the October 22, 2002 Office Action**

The primary point of confusion perceived by applicant relates to the use of the term "finite" by applicant in its previous arguments. Upon review of the previously presented arguments, applicant acknowledges that the use of the term "finite" may have led to some confusion on the part of the Examiner. Accordingly, as noted above, the only change that applicant makes to the previously presented arguments is to remove the term "finite". By using the phrase "finite, pre-determined number of generations", applicant intended to

describe the constant, non-variable nature of the evolutionary process of Chidambaran. A key element of Chidambaran is the repeating of the steps of the evolutionary genetic program for a "pre-specified number of times". In other words, Chidambaran does not continue the evolution process until the overall fitness function of the rules plateaus, thereby generating an optimized rule. The evolutionary process of Chidambaran stops, regardless of whether or not there has been any plateauing or any optimization of the rule. Undoubtedly, the rule will be better than prior to performance of the Chidambaran process, but it will not necessarily have plateaued, it will not necessarily be optimized, and nowhere does Chidambaran require that the plateauing and thus optimization occur.

By contrast, both independent claims of the present invention require that the plateauing and optimizing process using a genetic algorithm occur. The differences between genetic programming and a genetic algorithm are well known and are clearly defined in the argument presented in the reply and amendment filed on July 29, 2002.

The difference between the operation of Chidambaran's invention and the claims of the present invention can be demonstrated by considering the process used to progress children through a school system. The Chidambaran patent would be comparable to a system whereby, if a second grader spends 180 school days attending second grade, they are automatically advanced to the third grade. The 180 days represents the fixed, predetermined number of generations of the present invention. It allows the child to be progressed to third grade, regardless as to whether or not their level of knowledge and skill has been increased to the level necessary to succeed in third grade. By contrast, the present invention is analogous to a system whereby a student is taught subject matter, and then tested on it, and continues with this teaching/testing process until the testing indicates that the child has achieved a level which will allow them to be successful in third grade. For one child that might be completed in 30 days, for another child it might be 180 days,

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and for another child it might be 300 days. The number of generations will vary depending upon at what point the student "plateaus" at a level where they are able to succeed in the next grade level. Obviously the number of generations in the latter example will not be infinite; however, it is variable in nature and is not predetermined, in contrast to the constant, predetermined number of generations used by Chidambaran.

### Conclusion

Applicant has presented, in this response and in the response filed on July 29, 2002, sufficient reasons why the present invention patentably defines over the Chidambaran and Huang references, either alone or in combination. Applicant has clarified the operation of the present invention by utilizing different terminology to avoid confusion.


The present invention is not taught or suggested by the prior art. Accordingly, the Examiner is respectfully requested to reconsider and withdraw the rejection of the claims. An early Notice of Allowance is earnestly solicited.

The Commissioner is hereby authorized to charge any fees associated with this communication to Deposit Account No. 19-5425.

Respectfully submitted,

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Date

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